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**DON'T
GET
BURNED
BY YOUR
SOLAR CONTRACTOR**

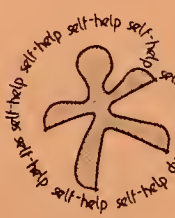
GOVERNMENT DOCUMENTS
COLLECTION
JUN 13 1978

University of Massachusetts



USE CONSUMER SENSE WHEN BUYING SOLAR

Michael S. Dukakis, Governor
Christine B. Sullivan, Secretary of Consumer Affairs



self-help information office
executive office of consumer affairs
one ashburton place
boston, massachusetts 02108
(617) 727-7780

and



Massachusetts Solar Action Office
Room 1413 One Ashburton Place Boston, Massachusetts 02108
Telephone: 617-727-7297

765/53

"CONSUMER SENSE" AND SOLAR

The information in this pamphlet can be used in purchasing any solar system. We have written it with an emphasis on solar domestic hot water systems because we feel they are the most economical systems. We are not advocating the use of total solar heating systems because they are not yet economical, except in some forms of new home construction. They will be economical in the next decade, however.

KEEPING YOUR RIGHTS IN MIND

Buying Solar is a major consumer purchase. With the growing number of solar companies springing up all over New England, it is important that you exercise care in purchasing a system and choosing a contractor. Having a good sense of your consumer rights can help you avoid being ripped-off. Knowing what to look for is the first step and in this pamphlet, we've highlighted specific areas.

FAMILIARIZE YOURSELF WITH HOW SOLAR WORKS

Don't let the contractor confuse you with fancy terms and the "promise you anything" approach. Acquaint yourself with the particular solar system you're interested in. It's not as difficult as you may think. The Massachusetts Solar Action Office (617-727-7297) can send you or tell you how to get some good basic material on solar, so you can ask intelligent questions about the system. You can also check out questionable claims with that office.

BEWARE OF THE DECEPTIVE AD

Because competition makes the contractor keen to get your business, you should be aware of simplistic claims and empty promises of tax credits. Claims that have even the tendency to deceive could be in violation of the Massachusetts Consumer Protection Act. Below is an example of one of these ads with its faults numbered and explained.

① 65% INCOME TAX CREDIT

\$\$\$\$ and \$\$\$\$

ENERGY-SAVING \$ DOLLARS \$ FROM \$ THE \$ SUN \$\$\$\$

LET SUN *AND* SON SELL YOU YOUR

SOLAR SYSTEM

**② OUR SOLAR SYSTEM WILL HANDLE UP TO 90 PERCENT
OF YOUR HOT WATER HEATING NEEDS**

**③ AND SHOW A COMPLETE "PAY-BACK" IN
7 to 8 YEARS**

④ * Reduce your gas and electric consumption

⑤ * Improve your TV Reception

⑥ * REASONABLY PRICED

⑦ * GUARANTEED

BUT YOU MUST ACT NOW!!!!!! ⑧

**AVOID THE SPRING RUSH AND GET IN ON THESE
GREAT PRICES AND THE TAX CREDITS
BEFORE IT IS TOO LATE**

CALL US COLLECT — WE'LL BE OUT TODAY

**SUN AND SON, INC.
777 SOLAR AVE., BOSTON
(617) 888-9999**

1 Contractors cannot make promises on eligibility for tax credits until such tax credits are signed into law. Check tax claims out with the Solar Action Office (617-727-7297) to be sure the claims are true.

2 3 4 5 Where any contractor is making seemingly fantastic claims, you should request specific data for installations in Massachusetts and the names and addresses of former customers to check out that information.

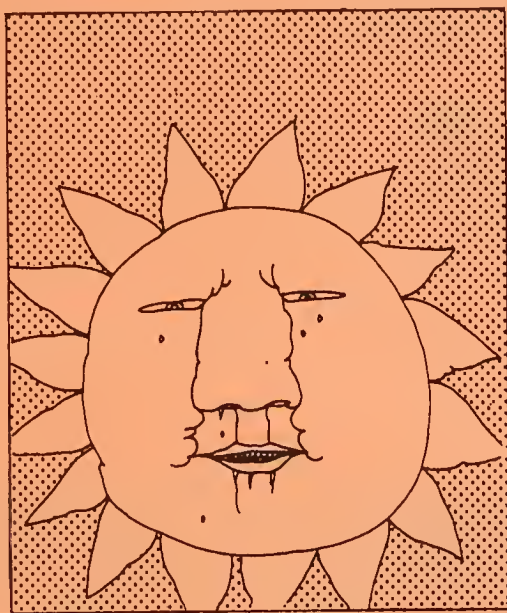
6 Comparison shop to make sure it is reasonable.

7 The nature and extent of the guarantee must be spelled out.

8 Finally, don't bow to pressure. Check out the company first.

HOW TO DIFFERENTIATE MANUFACTURERS' CLAIMS

Shopping for solar can be confusing when you're confronted with all of the different claims. Contractors can present information in any number of ways. Presented below are three claims for different solar hot water systems. They are each followed by some questions you should ask about the claims and facts you should know to help you find out if each claim is as fantastic as it sounds.



CLAIM I: SUN AND SON'S SUPER SOLAR SYSTEM CAN SAVE YOU 90% OF A FAMILY'S HOT WATER NEEDS!! You should ask: *How big is the family and how much hot water do they use?* **FACT:** The average family uses 15-20 gallons of hot water per day per person; so a typical family of 4 uses roughly 70 gallons of hot water per day. *Who figured out how well the system would perform?* **FACT:** Most of the reputable solar manufacturers are now having their equipment tested at independent testing labs in accordance with the HUD Intermediate Minimum Property Standards for Solar Equipment. You should ask to see copies of these test results. *Where was the solar water heater set up?* **FACT:** There is a great deal of difference between how a solar system will perform in Massachusetts and in New Mexico. A company selling a product in Massachusetts must only make claims representing how the product will work here.

CLAIM II: OUR SUPER SOLAR SYSTEM CAN GIVE YOU 250,000 BTU'S OF ENERGY EACH DAY!! **FACT:** A Btu is the amount of heat energy needed to raise 1 pound of water 1° F. The maximum amount of solar energy available in Massachusetts on a clear June day is 3,180 Btu's per sq. ft. per day. In addition to the questions asked for Claim I you should find out: *How big is the solar system?* **FACT:** You would need 80 square feet of collector working at 100% efficiency to provide that much heat in June. No collector's efficiency approaches that during a bright June day; so anyone claiming that their system produces close to, or more than, that number of Btu's per square foot is exaggerating their system's performance. *Is the number of Btu's a yearly average or the figure for a perfect day under ideal conditions?*

CLAIM III: OUR SOLAR SYSTEM WILL SAVE YOU \$400 PER YEAR!! In addition to the above questions, you should ask: *How big is the system? How is the \$400 calculated? What was the cost of the oil, gas, or electricity being saved? Is \$400 the estimated savings for 1 year or the average savings over 20 years which might be exaggerated by including a tripling of fuel prices?* **FACT:** No one knows how fast fuel prices will rise, but most estimates say 8-10% per year. Beware of solar systems which only look economical if fuel prices rise over 25% per year.

Most important of all, you should know exactly what you will have to pay to buy a system, install it, and get it working. You can balance this total cost against the performance claims made for the system. **YOU SHOULD KNOW WHAT THE TRUE, REASONABLE VALUES ARE FOR THE DIFFERENT PERFORMANCE CLAIMS. FACT:** For example, a \$2,000-\$3,000 solar hot water heating system in Massachusetts can provide roughly 50% of a family of four's yearly hot water needs, assuming the family uses 70 gallons of hot water per day. A typical family of four's hot water heating bill is roughly \$200-\$350 per year depending upon the cost of the fuel you use. Therefore, a solar hot water heating system should save you between \$100-\$175 per year. Be especially wary of any company making claims for considerably higher savings.

8 STEPS TO CHOOSING THE RIGHT CONTRACTOR

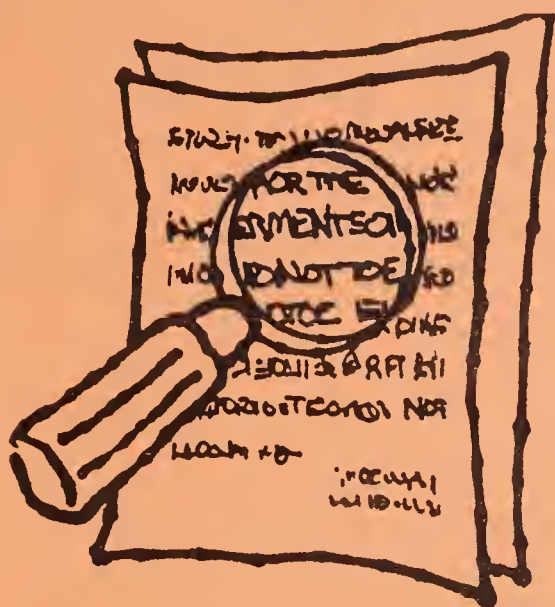
Know your contractor before you sign the contract.

1. Get a Better Business Bureau report on the business. That report will tell you what the contractor did previously to getting into solar. It also lists a bank reference, a supplier reference, and a customer reference.
2. Check and see whether the Attorney General's Office had filed suit against any previous businesses or the current one your contractor is involved in.
3. Get written estimates from three contractors.
4. Ask each of those contractors for three customer references. Ask those customer references whether they were satisfied with the job and whether the company kept to schedule.
5. Make a visual inspection of the jobs, if possible. You don't have to be an expert to see poor quality workmanship.
6. Find out the firm's track record. How many systems have they installed. Check to see if members of the company have heating, plumbing or engineering experience. Make sure any plumbers or engineers are licensed by calling the State Plumbers Board at (617) 727-3046 and Professional Engineers Board at (617) 727-3088.
7. Find out whether or not anyone received formal training from the manufacturer on how to install the system. If not, find out whether the manufacturer will have any control over the installation process.
8. Obtain a list of installers who install solar domestic hot water systems which have been approved for use in Massachusetts under the HUD solar hot water initiative program from the Solar Action Office (617) 727-7297.



Be skeptical and aware of techniques aimed to con you, such as fantastic, long-term guarantees, promises of care-free maintenance and offers to reduce costs by using your home as a "model" for advertising purposes or referral sales to friends.

A final note, be careful of contractors who use Post Office Box numbers. Though many legitimate businesses use these outlets, a common tactic of the fly-by-night contractor is to use a P.O. Box number, operate a territory until the law starts closing in, then move and take a new name in another area. Find out the location of the business and how long it has been there.



THE CONTRACT

Examining the written contract should be done as carefully as choosing the contractor. The following steps are suggested:

1. Get everything in writing on the contract, not on an empty sheet of paper without a signature.
2. Read and understand the contract and make sure every blank is filled-in properly.
3. Be sure there is a detailed description of the job to be completed and make sure it includes the specifications with the brand name and size of the materials.
4. Set forth a price term that specifies the upper limit on the cost of the work.
5. Have the terms of the warranty spelled out clearly.
6. The starting and completion dates should be in the contract.
7. The schedule by which the contractor is to be paid should be defined.
8. To avoid the problem of getting sued if your contractor is uninsured, make sure the contractor and subcontractor certify that they're insured in the workmen's compensation, property damage, and personal liability areas.
9. Consider a "hold back" clause of 10 to 20 percent which will allow you to wait to pay the final amount until 30 days after the job is completed, so you can get corrections made.
10. Another clause to consider is a "broom clean" clause which makes the contractor responsible for clean-up and removal of debris.
11. Find out who is the contractor's supplier of materials or labor and make sure they are bonded and written into the contract.
12. The contract should also include a "liability release" clause which is important so that those supplying materials and labor to your contractor cannot claim part of your property if your installer fails to pay them.
13. Check to see if the 3-day cancellation clause is in order. The law allows you three business days to cancel the contract if it was signed anywhere except the contractor's office.
14. There is an excellent model for a home improvement contract available through the Massachusetts Consumers' Council. Send a self-addressed stamped envelope to the Council at 100 Cambridge Street, 21st Floor, Boston, Mass. 02202.

EXAMINING WARRANTIES

**FULL
IS
BEST**

FULL WARRANTY

This product is guaranteed against all defects in construction and against corrosion for a period of 5 years. Manufacturer will pay for all labor and parts costs to correct problems.

**LIMITED
IS
JUST
THAT —
LIMITED**

LIMITED WARRANTY

This product is guaranteed to be one of the finest solar systems ever manufactured. Manufacturer will pay for costs of parts to correct any problem.

Under the Federal Magnuson-Moss Warranty Act, if a company gives a warranty, it must be designated as either FULL or LIMITED. The Act also prescribes that all warranties must be easy to read and understand. In addition, they must be written in ordinary language, not “legalese,” and fine print isn’t allowed. Every term and condition of the warranty must be spelled out in writing. If it isn’t, it isn’t part of the warranty. That is why it is important to get all claims in writing, as part of the warranty. Make sure it is put on the warranty or contract. Not on an empty piece of paper, without a signature.

Look for a FULL warranty. It is the best, because it gives you the most protection. But, make sure the warranty covers the whole product, not just a part.

If the warranty on the system you want is LIMITED, find out what is covered and what is not. A LIMITED warranty gives you anything less than what a FULL warranty gives. A LIMITED warranty may make you pay for the removal and re-installation of a defective system. It may also make you ship the unit to the store or factory. A FULL warranty would not make you do this. That is why it is worth your while to shop around for a FULL warranty.

Make sure you know what your responsibilities are in order to keep the warranty current and what you must do to file a warranty claim. Check the time limit on the warranty and don’t be misled by long-term guarantees. Read to see what you are covered for. Check service call charges, also. A company may charge you \$50 just to come out to look at the system, even though no repairs are effected.

In addition to these warranties, Massachusetts has the implied warranties of merchantability and fitness for a particular purpose. These implied warranties come automatically with every sale, even though they are not written out. A seller cannot disclaim these warranties under Massachusetts law by saying that the implied warranties don’t apply in your case. You get them automatically.

ANY QUESTIONS ON ...
SOLAR? Contact:



Massachusetts Solar Action Office

Room 1413 One Ashburton Place Boston, Massachusetts 02108

Telephone: 617-727-7297

For further information on any consumer problem contact:



self-help information office

executive office of consumer affairs
one ashburton place
boston, massachusetts 02108

(617) 727-7780

